

*Overview of findings and
recommendations of the*

**Review of the Water
Sharing Plan for the
Macquarie Bogan
unregulated river water
sources 2012**

This slide pack provides an overview of the Commission's review and should not be taken as our advice regarding the Macquarie Bogan plan review. The Commission's official advice and full recommendations for the plan are available via our website – <https://www.nrc.nsw.gov.au/wsp-reviews>

Acknowledgement of Country

The Natural Resources Commission acknowledges and pays respect to the traditional owners and Aboriginal peoples of the Plan area, including the Tubba-Gah who have an established Indigenous Land Use Agreement, and the active native title claim of the Gomeroi, Ngemba, Ngyiyampaa, Wangaapuan, Wayilwan people and the Warrabinga-Wiradjury people.

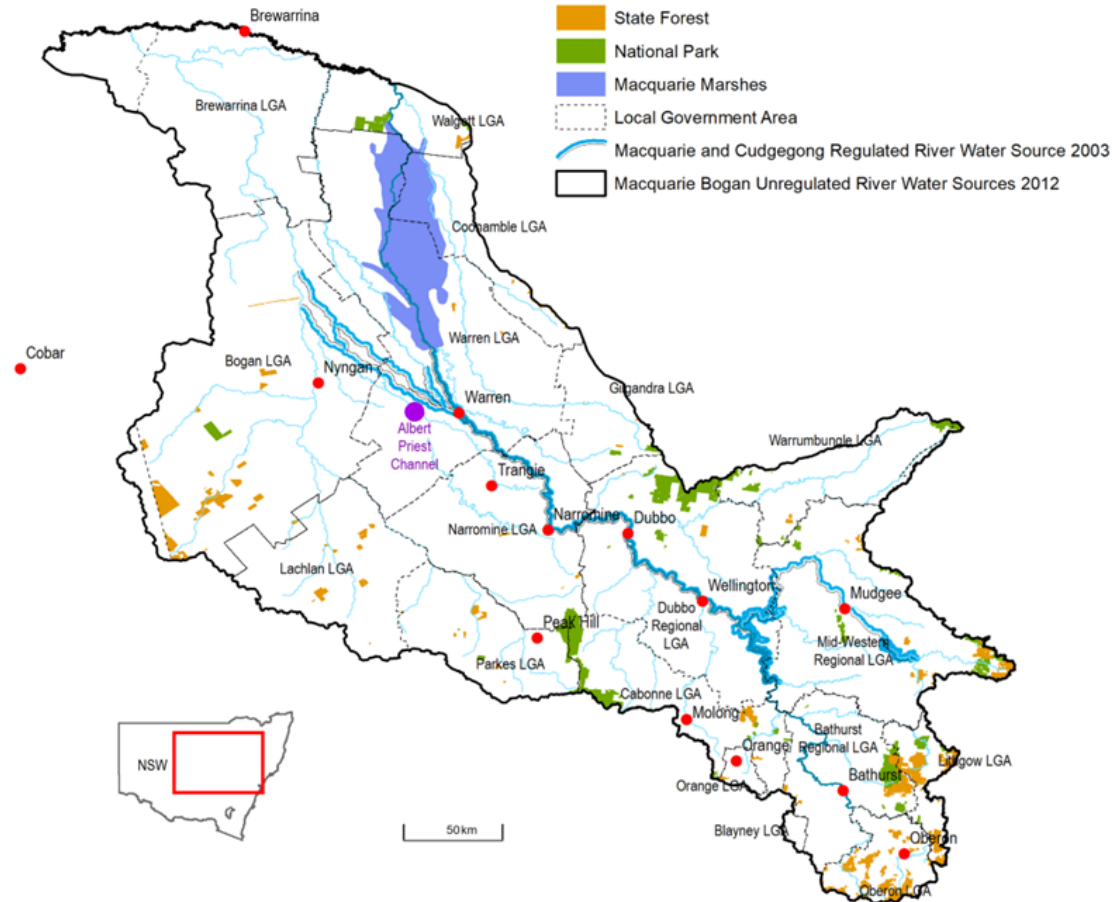
The Commission recognises and acknowledges that Traditional Owners have a deep cultural, social, environmental, spiritual and economic connection to their lands and waters. We value and respect their knowledge in natural resource management and the ongoing contributions of many generations to this understanding and connection.

The Commission also recognises and pays respects to Aboriginal peoples for whom the waterways of the Plan area are significant.

Our review

- The Natural Resources Commission has a statutory role to review water sharing plans approaching their 10-year expiry
- Our review considered evidence provided via public submissions, stakeholder consultation, technical advice and document review as well as other relevant State-wide and regional government policies or agreements that applied
- Our review evaluated if the plan provisions adequately contributed to achievement of environmental, social, cultural and economic outcomes and identified where improvements can be made
- Finally, our review recommended whether the plan should be extended as is or replaced with an improved plan

Macquarie Bogan unregulated water sharing plan



Overview of plan area

- The plan covers the unregulated water sources in the Macquarie and Bogan catchments in the NSW central west
- The plan spans diverse landscapes from mountainous terrain to alluvial plains
- Major rivers in the plan include the unregulated Macquarie, Cudgegong, Fish and Bogan rivers
- Water dependent industries include agriculture, mining and tourism
- The plan supports the internationally significant wetlands, the Macquarie Marshes, threatened species and populations and endangered ecological communities
- Major towns include Bathurst, Orange, Oberon and Nyngan, with approximately 190,000 people residing in the plan area. These towns are reliant on water from the plan to meet their town water supply requirements.

Overall recommendation

- There are material risks to the achievement of environmental, social and cultural outcomes and economic outcomes.
- The plan should be improved based on the Commission's recommendations and replaced by 1 July 2025.

Recommendation options available under s43A of the <i>Water Management Act 2000</i>	
Extend existing plan for 10 years	
Improve and replace plan within 2 years	⊗



Actions for plan replacement

- The Commission has identified key issues that should be addressed in plan replacement to improve environmental, social, cultural and economic outcomes
- The following slides detail these issues and the actions that should be undertaken by DPE Water to improve plan outcomes
- Full recommendations made by the Commission to be considered by DPE Water in plan replacement are included in our public report available on our website

Improve water management against extraction limits

Key issues

- The plan lack sustainable, numerically defined long-term average annual extraction limits (LTAAELs)
- Unregulated river access licence entitlements in the Macquarie-Bogan and Castlereagh catchments are approximately 5 times greater than the estimated unregulated extraction limit
- Available water determinations (AWDs) have been set to 100 percent for all licences despite risk of overextraction and lack of LTAAEL compliance
- A lack of LTAAEL assessment and AWD adjustment risks overextraction and potentially impacts river resilience
- Lack of distinct extraction management units limits the ability to manage different extraction risks across the plan area

Recommended actions for DPE-Water

- Establish sustainable, fixed numeric LTAAELs based on best available information including all forms of extraction, ecological requirements, hydrological and climate information
- Define the plan's LTAAEL for each extraction management unit
- Undertake LTAAEL compliance and adjust AWDs as required
- Apply a conservative AWD until LTAAEL compliance assessments are completed
- Review and provide for requirements of basic landholder rights and native title rights

Strengthen protection of water for the environment

Key issues

- Gauging stations within the plan area have not been utilised to generate flow-based water access rules
- Active management mechanism could be used across a greater area of the plan to protect environmental water delivery
- Lack of clarity on water used to meet replenishment flow requirements, and the adequacy of current replenishment flow volumes given projected climate change
- Loss factors for the Bulbodney Grahway water source have not been reviewed to consider needs of environmental values
- Surface water extraction may impact the Wellington Caves, a groundwater dependent asset, due to hydraulic connectivity
- Risks of floodplain harvesting have not been appropriately considered or managed

Recommended actions for DPE-Water

- Utilise current hydrometric network to establish flow-based access rules and reduce pressure on the river during low flow periods
- Expand water sources where the active management mechanism applies in the plan
- Restrict the 'planned' environmental water that can be used to meet replenishment flow requirements
- Update, where required, delivery and protection of replenishment flows from the regulated Macquarie River
- Review and revise cease to pump conditions associated with the upper and lower Nyngan weir pools
- Determine the need for linked access rules with the *Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources 2020* can mitigate risk of surface water extraction on the Wellington Caves
- Assess floodplain works in the plan area to ensure that take is appropriately accounted for, does not impact high priority environmental assets or constrain connectivity

Secure town water supply to meet future needs

Key issues

- The plan includes complex and inconsistent access rules that do not effectively protect high priority needs
- Bathurst and Orange are experiencing significant population growth and were subject to significant water security risks during the 2017-2020 drought
- Town water supply dams and interregional pipelines are not referenced in the plan
- Limited guidance on approval and risk assessment of stormwater harvesting and any potential plan impacts
- No drought restriction conditions established for the Fish River water supply scheme
- Access rules do not adequately protect inflows to the Nyngan weir pools which supply water for Nyngan and Cobar

Recommended actions for DPE-Water

- Revise access rules and town water storage release triggers in the Upper Macquarie to protect town water needs
- Review the need for additional plan provisions to manage releases from town water storages to meet environmental and basic rights
- Limit exemptions for further instream dams on third order or greater streams and develop guidelines to limit any downstream impacts
- Include explicit drought conditions for the Fish River water source
- Review and revise the cease to pump conditions for the upper and lower Nyngan weir pools to consider town water needs

Improve outcomes through trade

Key issues

- Current trading rules are complicated and highly restrictive
- New data indicates that water sources may have lower instream values that can allow for the expansion of trade in the plan without compromising environmental values

Recommended actions for DPE-Water

- Review and revise access licence dealing provisions based on hydrologic stress, entitlement volumes, connectivity, HEVAE mapping and cultural assets and values
- Any changes to licence dealing provisions should also consider impacts between unregulated and regulated water sharing plans and impacts on high-flow water dependent assets
- Utilise the Active Management Annual Evaluation and Review report to revise trading rules and notify licence holders of any changes to trading rules

Improve outcomes for Aboriginal people

Key issues

- Lack of proactive involvement of Aboriginal people in the determination of Aboriginal value and rights for the purpose of water planning and management
- No protection of known Aboriginal high value water dependent cultural assets
- Limitations on use of water by Aboriginal people
- Controlled allocations have been issued without evidence of Aboriginal water rights being considered
- Lack of acknowledgement and recognition of Native Title determinations and Independent Land Use Agreements in plan provisions

Recommended actions for DPE-Water

- Include registered Native Title claims and Independent Land Use agreements
- Reflect dual naming of the Macquarie/Wambuul in the plan
- Consult with Aboriginal stakeholders to facilitate water access rights required to meet cultural and economic uses
- Identify and protect high value water dependent cultural assets
- Controlled allocations to be prioritised for cultural water use
- Ensure plan is consistent with the NSW water strategy relating to Aboriginal people's rights and values and access and ownership of water



Natural
Resources
Commission